# Web Information Services Environment (WISE)

Johan A. Goossens

Head, User Domain Support Branch

SACLANT AN-64

# SACLANT CIS Web Technology History

- **1993 – Deployment of first generation web tools (CERN server and NCSA Mosaic) in Alpha CCIS**
  - **Static HTML pages (mainly documentation)**
- **1995 – Deployment of second generation web tools (Apache server and Netscape browser) in MCCIS**
  - **Static HTML and dynamic CGI content (C2)**
  - **Deployment of MCCIS Virtual Command Center (VCC)**
- **1997-1998 – Deployment of emerging web technologies**
  - **Java, JavaScript, CSS**
  - **Browser platform independence (IE/NS)**
  - **Server side productivity enhancements (e.g. XML)**
  - **Server side performance enhancements (e.g. extensions vs. CGIs)**
  - **Implemented in Virtual C3 Services (VC3S)**

# SACLANT CIS Web Technology History

- **1998-2000 – Evaluation of industrial developments**
  - **Microsoft product suite (IIS, ASP, FrontPage, Visual ***. dot.net)**
  - **Sun Java product suite (e.g. applets, servlets)**
  - **W3C standards (XML, DOM, XSL(/T), WEBDAV, SOAP…)**

- **2000 - Deployment of state-of-the-art web tool**
  - **Creation of WISE framework based on common standards**
  - **Deployment as part of MCCIS Release 4.2R1**

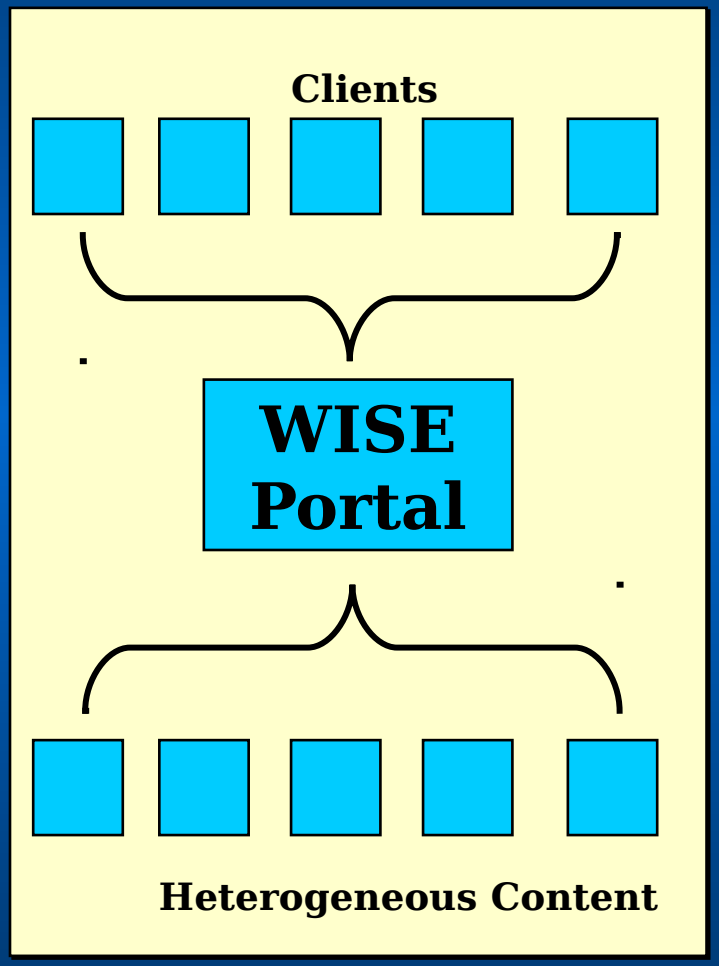
# What is WISE?

- **WISE is:**
  - **An information portal**
  - **A client/services implementation**
  - **A heterogeneous data manager**
  - **A framework for highly dynamic data exchange**
  - **An object-oriented web server**
  - **An application server**
  - **A collaboration gateway**
  - **An open/standards based system**
  - **A toolkit to empower users**

# WISE Goals and Objectives

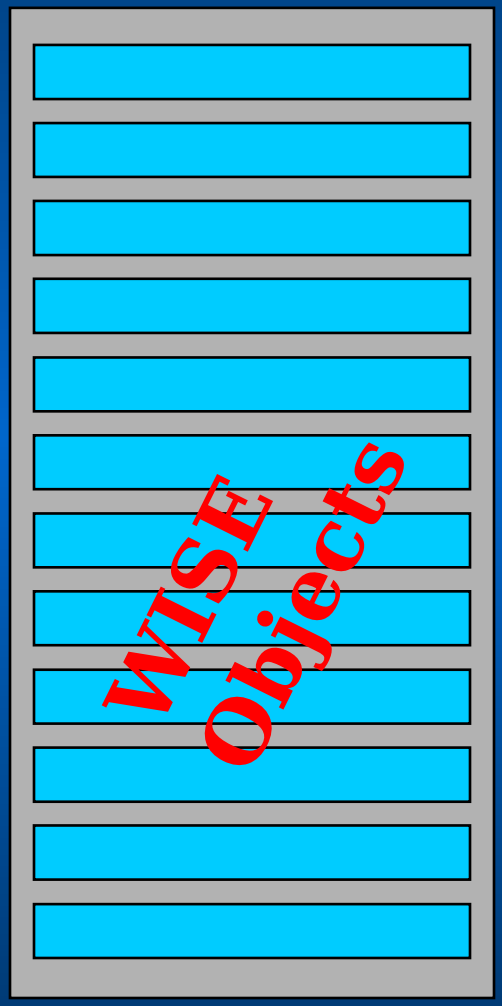
- **The Web Information Services Environment (WISE) replaced the MCCIS Virtual C3 Services (VC3S) meeting the following goals and objectives:**
  - **Easy to use (for application developers, site managers, information sponsors, content managers and information customers)**
  - **Consistent yet appealing look and feel**
  - **Fully customizable by on-site personnel**
  - **“Me” centric to provide end-users with customization options**
  - **Support for highly dynamic content**
  - **Extendable through plug-in options**
  - **High performance**
  - **Efficient/flexible security model with high degree of transparency**
  - **Useable for traditional MIS and CCIS applications**

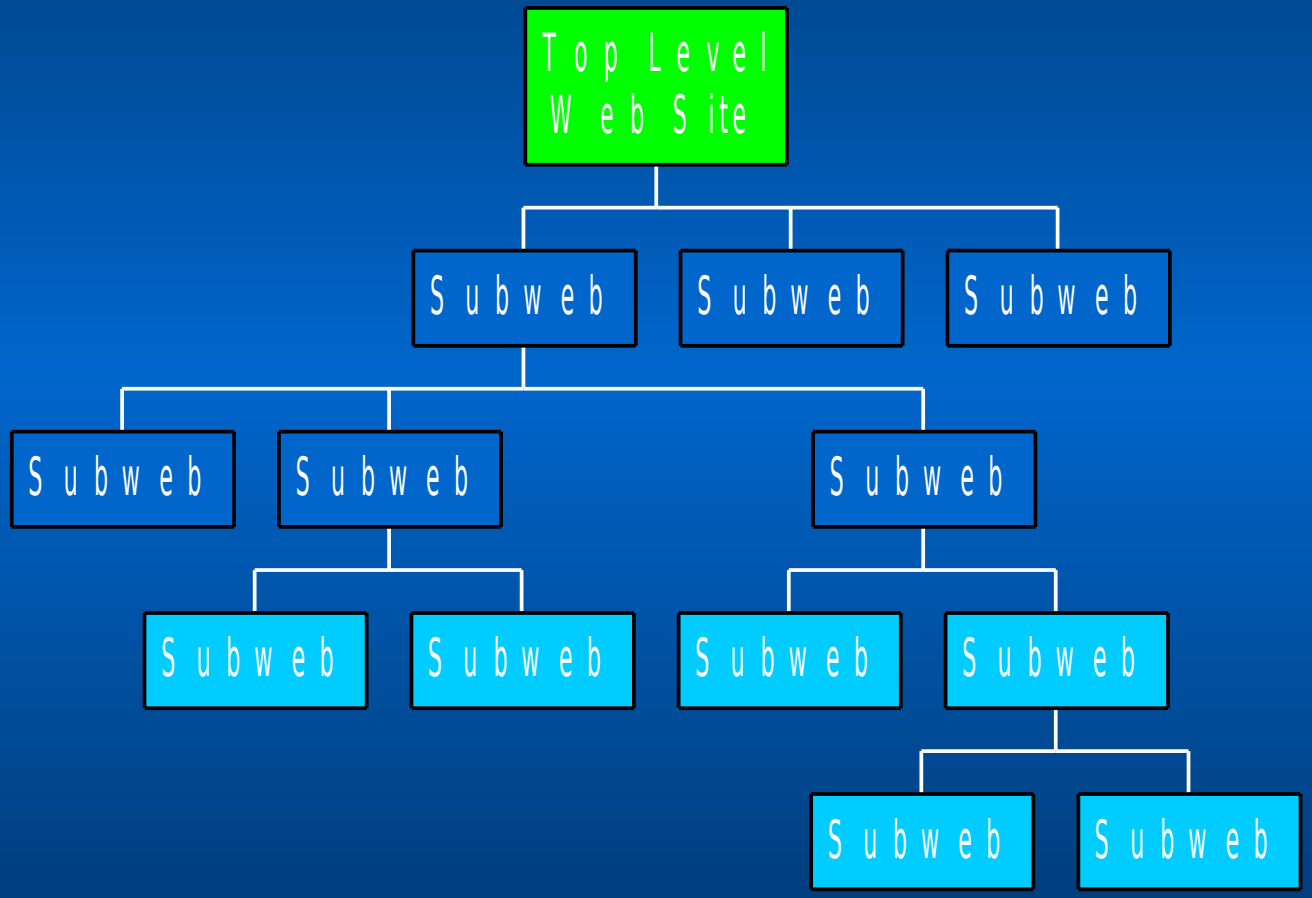
# WISE Design



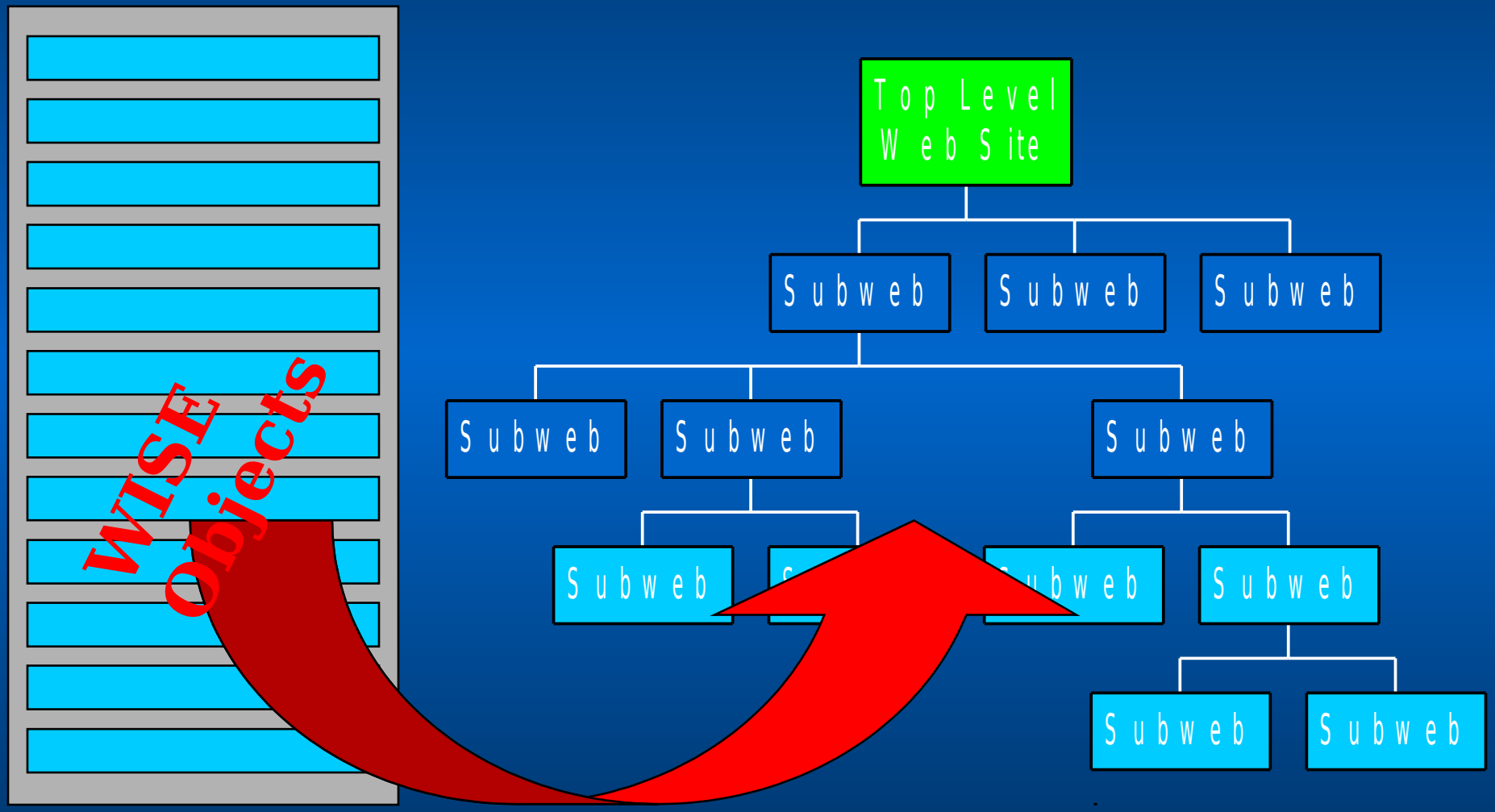

- **Example Content Types**
  - **Documents/Publications**
  - **News (e.g. what's new, daily notices)**
  - **Message traffic**
  - **Discussion (collaboration)**
  - **Tracking (e.g. issues, todo, taskers)**
  - **Personal Information Manager (PIM)**
  - **Calendars (e.g. events)**
  - **Maps (spatial viewing)**
  - **Databases**
    - **Static (reference)**
    - **Dynamic (e.g status of forces, RMP/COP)**
  - **Applications**

# WISE Web Site Topology

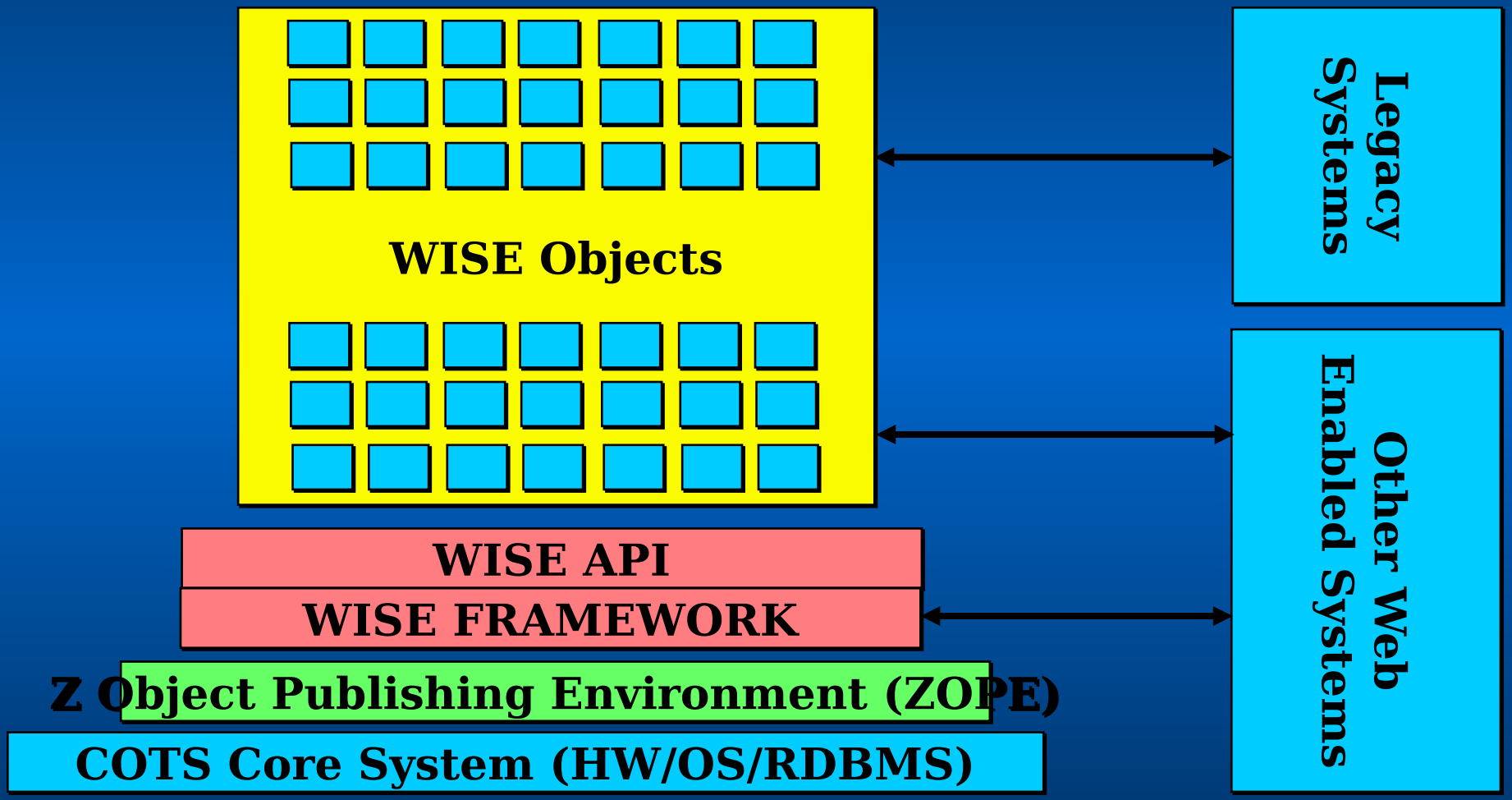


# WISE Web Site Topology



# WISE Architecture



# WISE Server Options

- **Microsoft Windows:**
  - **Windows 95, 98, ME**
  - **Windows NT 4.0 (Workstation/Server)**
  - **Windows 2000 (Professional/Server/Advanced Server)**
  - **Windows XP (Home/Professional/Server/Advanced Server)**
- **Linux (any distribution)**
- **HPUX 10.20 (soon 11i)**
- **Solaris**
- **MacOS X**

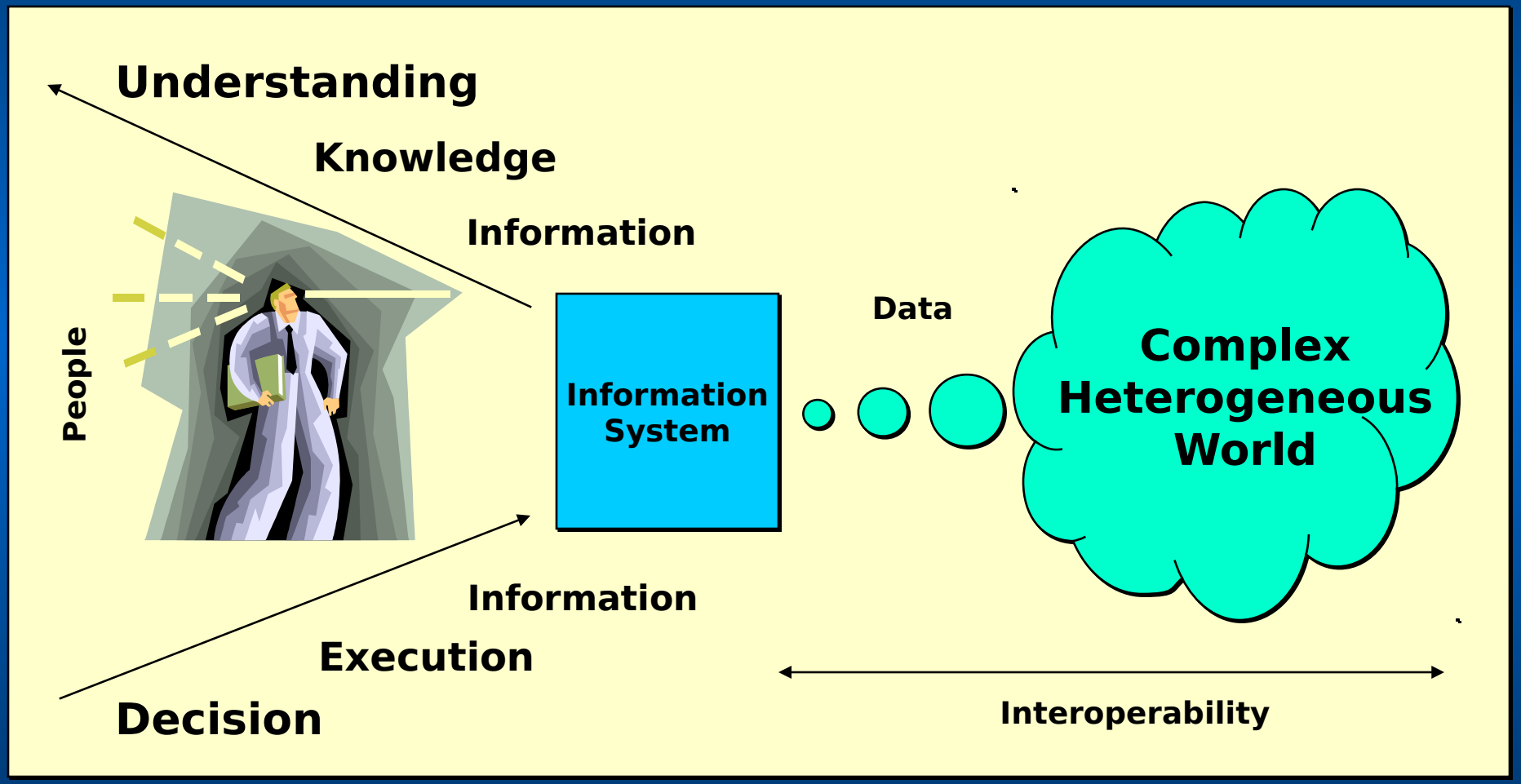
# WISE Client Options

- **Any OS with the following browsers:**
  - **Internet Explorer 4.x, 5.x, 6.x**
  - **Netscape Navigator 4.x, 6.x**
  - **Netscape Communicator 4.x, 6.x**
  - **Mozilla 0.x**
  - **Konqueror 2.x**

# WISE Roles

- **WISE framework/API maintainer**
  - **Performed by small group of highly skilled programmers**
- **WISE object developer**
  - **Currently performed by non-programmers using provided tools**
- **WISE administrator**
  - **Performed by systems administrators without special training**
- **WISE content manager**
  - **Performed by data owners after one day training program**
- **WISE consumer**
  - **Performed by any user with a browser without any training**

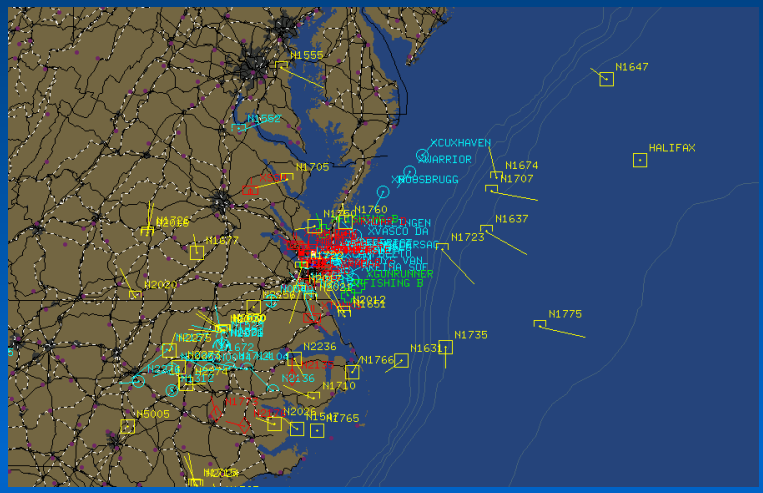
# Information System Definition

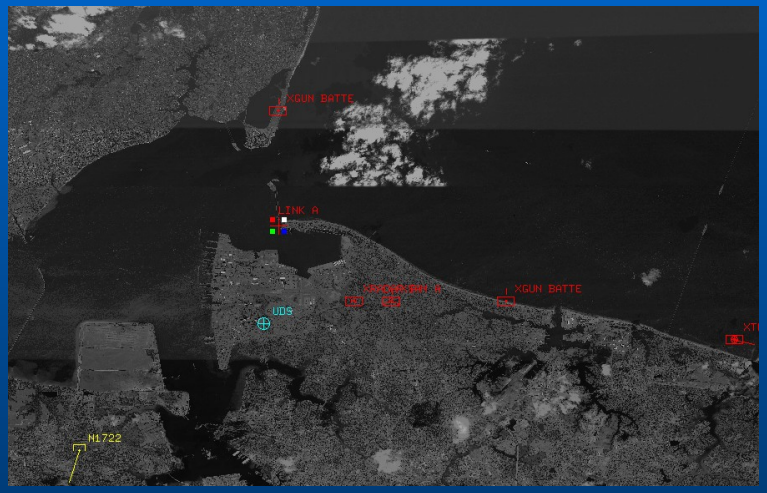


# Knowledge or Understanding?

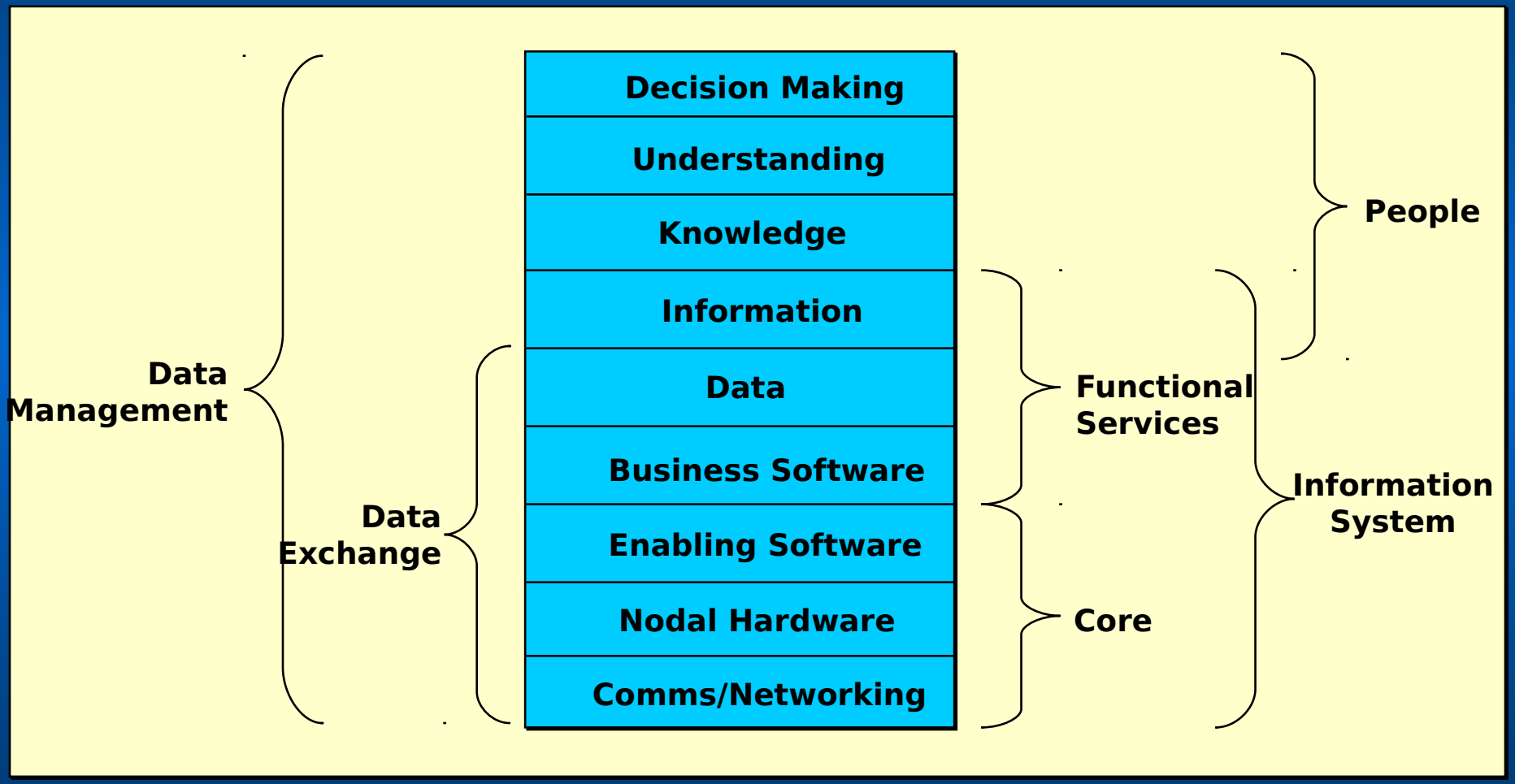
$$E = mc^2$$

# What is your Understanding?

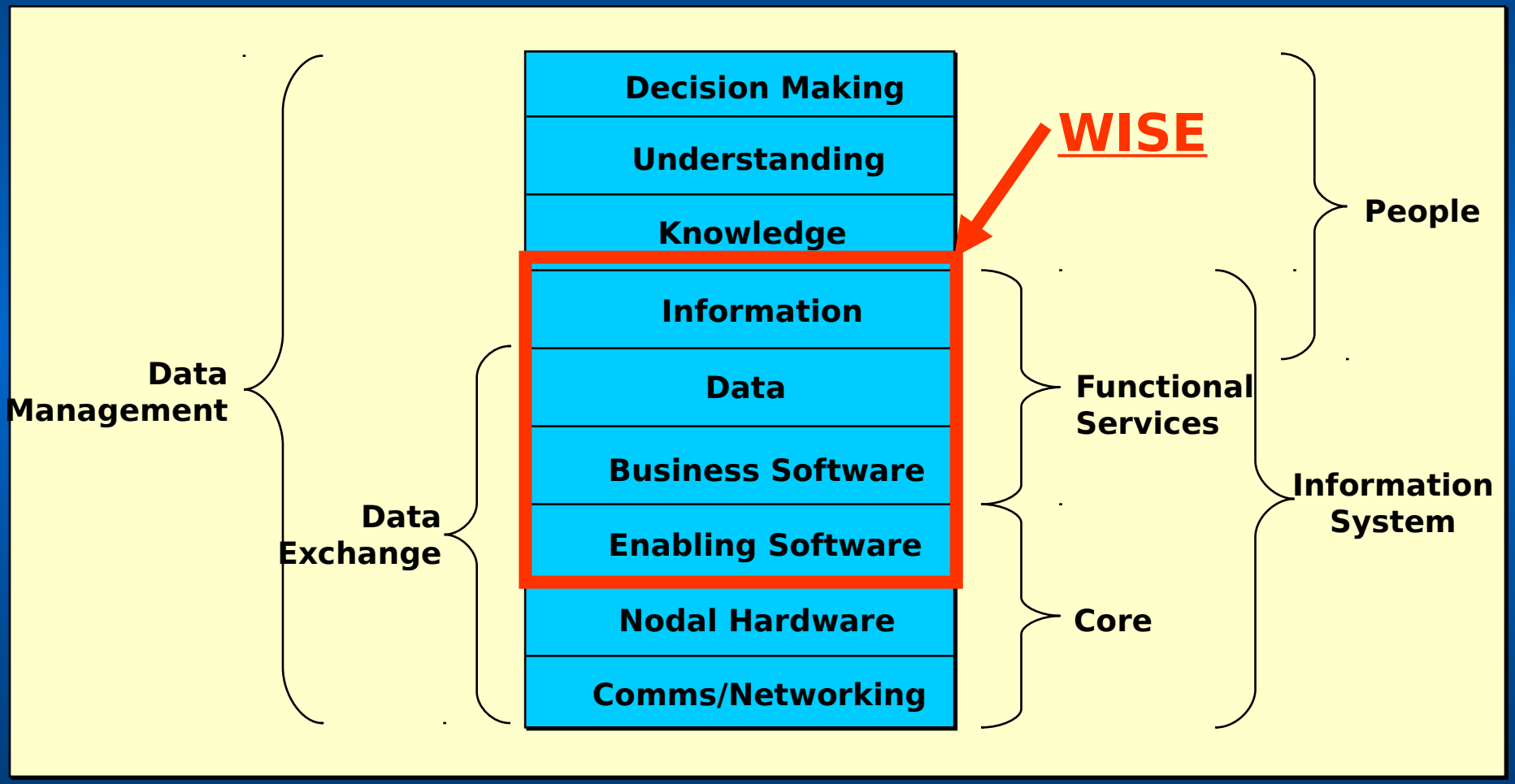


# Information System Layering



# WISE within an Information System



# WISE Life Cycle Issues

- **Low Total Cost of Ownership**
  - **Free software distribution (FOTS/NOTS)**
  - **Low training requirement**
- **Comes with support infrastructure**
  - **Example policy**
  - **Training program**
  - **Helpdesk**
- **Open architecture**
  - **Does not force homogeneous system or software architecture**
  - **Does not use proprietary products/protocols from single vendor**
  - **Enables “third parties” to develop local or national applications**